

IN THE CLAIMS:

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Currently amended) A method for cooling a room configured to house a plurality of computer systems, said method comprising:

providing a heat exchanger unit configured to receive air from said room and to deliver air to said room;

receiving air from said room through an opening in the heat exchanger unit;

supplying said heat exchanger unit with cooling fluid from an air conditioning unit;

cooling said received air through heat exchange with the cooling fluid in the heat exchanger unit;

delivering the cooled air to said room through a plurality of fans located on opposite sides of the opening;

sensing temperatures at one or more locations in said room;

determining whether the sensed temperatures at one or more locations in said room are within a predetermined range; and

controlling at least one of the temperature of said cooling fluid and said air delivery to said room in response to said sensed temperatures at said one or more locations being outside of the predetermined range.

2. (Previously Presented) The method according to claim 1, wherein said step of controlling at least one of a temperature of said cooling fluid and said air delivery to said room comprises varying an output of said air conditioning unit to control the temperature of said cooling fluid.

3-5. (Canceled).

6. (Previously presented) The method according to claim 1, further comprising:
determining whether the sensed temperatures are at least one of less than and equal to a minimum set point temperature in response to said sensed temperatures at one or more locations in said room being outside of said predetermined range.

7. (Original) The method according to claim 6, wherein said controlling step comprises decreasing said air delivery to said room in response to said sensed temperatures at said one or more locations being at least one of less than and equal to a minimum set point temperature.

8. (Original) The method according to claim 6, wherein said controlling step comprises increasing said air delivery to said room in response to said sensed temperatures being above said minimum set point temperature and outside of said predetermined range.

9. (Previously presented) The method according to claim 1, further comprising:
varying the cooling fluid temperature in response to the sensed temperatures at one or more locations in said room being outside of said predetermined range.

10. (Original) The method according to claim 9, further comprising:
increasing said cooling fluid temperature in response to a sum of the sensed temperatures at one or more locations being below said predetermined range.

11. (Original) The method according to claim 9, further comprising:
decreasing said cooling fluid temperature in response to a sum of the sensed
temperatures at one or more locations being above said predetermined range.

12-17. (Canceled).

18. (Currently amended) A system for cooling a room containing one or more
computer systems, said system comprising:

a heat exchanger unit configured to receive cooling fluid through a cooling fluid line
from an air conditioning unit for cooling the cooling fluid, said heat exchanger unit being
further configured to receive air through an opening in the heat exchanger unit, wherein said
air is cooled through heat transfer with said cooling fluid in the heat exchanger unit;

said heat exchanger unit having ~~at least one~~ a plurality of fans positioned on opposite
sides of the opening, said plurality of fans configured to cause air to flow into the heat
exchanger unit through the opening and to cause air to flow out of the heat exchanger unit
through operation of said plurality of fans;

a heat exchanger controller operable to control a supply of said cooling fluid to said
heat exchanger unit and operable to control the speed of the at least one fan;

one or more temperature sensors for sensing temperatures at one or more locations in
the room; and

an air conditioning unit controller configured to operate the air conditioning unit to
vary the temperature of said cooling fluid in response to said sensed temperatures at said one
or more locations being outside of the predetermined range.

19. (Previously Presented) The system according to claim 18, wherein said heat exchanger controller is configured to receive environmental condition information from said one or more temperature sensors.

20. (Previously Presented) The system according to claim 19, wherein said temperature sensor comprises a thermocouple.

21-23. (Canceled).

24. (Original) The system according to claim 18, wherein said cooling device comprises at least one of a variable capacity compressor, a heat exchanger, a chiller, and a cooling device controller configured to control said at least one of said variable capacity compressor, said heat exchanger, and said chiller.

25-29. (Canceled).

30. (Previously Presented) A system for cooling computer systems housed in one or more racks, said racks being maintained in a room, said system comprising:

means for receiving air from the room, said means for receiving comprising a heat exchanger unit having an opening and a plurality of fans located on opposite sides of said opening, wherein the air is received into the heat exchanger unit through said opening;

means for cooling the received air in the means for receiving air, said means for cooling including means for receiving cooling fluid from an air conditioning unit;

means for delivering cooled air to said computer systems, said means for delivering comprising the plurality of fans, wherein the plurality of fans are configured to deliver cooled air from the heat exchanger unit;

means for measuring temperatures at one or more locations in said room;

means for controlling delivery of said cooled air in response to the temperature measurements; and

means for controlling the temperature of said cooling fluid in response to said sensed temperatures at said one or more locations being outside of the predetermined range.

31. (Original) The system according to claim 30, further comprising:

means for controlling delivery of cooling fluid through said cooling means.

32. (Previously Presented) The method according to claim 1, wherein the step of controlling at least one of the temperature of said cooling fluid and said air delivery further comprises manipulating at least one of the temperature of said cooling fluid and said air delivery in response to a determination of the sensed temperatures at one or more locations in said room being outside the predetermined range.

33. (Previously Presented) The method according to claim 1, further comprising:

accessing an algorithm in a memory to determine manners of controlling at least one of the temperature of said cooling fluid and said air delivery to said room in response to a determination of the sensed temperatures at one or more locations in said room being outside the predetermined range.

34. (Previously Presented) The system according to claim 18, wherein at least one of the heat exchanger unit controller and the air conditioning unit controller is further configured to determine whether the sensed temperatures are at least one of less than and equal to a minimum set point temperature in response to said sensed temperatures at one or more locations in said room being outside of said predetermined range.

35. (Previously Presented) The system according to claim 34, wherein the heat exchanger unit controller is further configured to decrease said air delivery to said room in response to said sensed temperatures at said one or more locations being at least one of less than and equal to a minimum set point temperature.

36. (Previously Presented) The system according to claim 18, wherein heat exchanger unit controller is further configured to increase said air delivery to said room in response to said sensed temperatures being above said minimum set point temperature and outside of said predetermined range.

37. (Previously Presented) The system according to claim 30, further comprising:
means for manipulating at least one of the temperature of said cooling fluid and said air delivery in response to a determination of the sensed temperatures at one or more locations in said room being outside the predetermined range.

38. (Previously Presented) The system according to claim 30, further comprising:
means for determining whether the measured temperatures are at least one of less than and equal to a minimum set point temperature in response to said sensed temperatures at one or more locations in said room being outside of said predetermined range.

39. (Currently amended) A computer readable storage medium on which is embedded one or more computer programs, said one or more computer programs implementing a method for cooling a room configured to house a plurality of computer systems, said one or more computer programs comprising a set of instructions for:

supplying a heat exchanger unit configured to receive air through an opening in the heat exchanger unit from the room and to deliver air to said room through a plurality of fans located on opposite sides of the opening with cooling fluid from an air conditioning unit;

cooling said received air through heat exchange with the cooling fluid in the heat exchanger unit;

sensing temperatures at one or more locations in said room;

determining whether the sensed temperatures at one or more locations in said room are within a predetermined range; and

controlling at least one of the temperature of said cooling fluid and said air delivery to said room in response to said sensed temperatures at said one or more locations being outside of the predetermined range.

40. (Previously Presented) The computer readable storage medium according to claim 39, said one or more computer programs further comprising a set of instructions for:

varying an output of said air conditioning unit to control the temperature of said cooling fluid.

41. (Previously presented) The computer readable storage medium according to claim 39, said one or more computer programs further comprising a set of instructions for:

determining whether the sensed temperatures are at least one of less than and equal to a minimum set point temperature in response to said sensed temperatures at one or more locations in said room being outside of said predetermined range.